

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	290	323/267.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/07 08:56
L2	1027	361/23.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/07 08:57
L4	1660	74/335.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/07 08:57
L5	303	74/473.12.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/07 08:58
L7	435	74/365.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/07 08:58
L8	306	180/337.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/07 08:59
L9	3866	(1 or 2 or 4 or 5 or 7 or 8)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/07 09:00
L10	0	9 and ((shift or select\$6) adj2 motor) and (transmission with actuat\$3) and (direction with (permit\$6 or validat\$6)) and (current near3 flow\$3) and (hall near3 (sens\$3 or device))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/07 09:03

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	2017	(transmission with (actuat\$6 near3 (motor or mechanism))) and current and (direction or shift)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/02 08:17
S2	308	S1 and ((detect\$6 or determ\$3) with fault with direction or (current near3 flow))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/02/22 16:10
S3	9	S1 and ((detect\$6 or determ\$3) with fault with direction or (current near3 flow)).ab.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/02/22 16:23
S4	34	S1 and ((detect\$6 or determ\$3) with fault with direction or (current near3 flow)).clm.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/19 12:22
S5	29	S4 not S3	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/02/23 11:06
S6	2017	(transmission with (actuat\$6 near3 (motor or mechanism))) and current and (direction or shift)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/02/23 11:07
S7	9	S6 and ((detect\$6 or determ\$3) with fault with direction or (current near3 flow)).ab.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/02/23 11:07
S8	34	S6 and ((detect\$6 or determ\$3) with fault with direction or (current near3 flow)).clm.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/02/23 11:07
S9	29	S8 not S7	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/02/23 11:07
S10	11	S9 and (transmission with direction)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/02/23 13:17
S11	2017	(transmission with (actuat\$6 near3 (motor or mechanism))) and current and (direction or shift)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/02/23 13:18

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S12	9	S11 and ((detect\$6 or determ\$3) with fault with direction or (current near3 flow)).ab.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/02/23 13:18
S13	34	S11 and ((detect\$6 or determ\$3) with fault with direction or (current near3 flow)).clm.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/02/23 13:18
S14	29	S13 not S12	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/02/23 13:18
S15	2017	(transmission with (actuat\$6 near3 (motor or mechanism))) and current and (direction or shift)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/02/23 16:02
S16	9	S15 and ((detect\$6 or determ\$3) with fault with direction or (current near3 flow)).ab.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/02/23 16:02
S17	34	S15 and ((detect\$6 or determ\$3) with fault with direction or (current near3 flow)).clm.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/02/23 16:02
S18	29	S17 not S16	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/02/23 16:03
S19	2	S18 and (transmission with direction) and (current with (start\$6 or stationary) with motor)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/02/23 16:02
S20	2	"5315218".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/18 15:22
S21	0	S20 and ((speed or current ) with (detect\$6 or monitor\$3 or sens\$3 or determ\$6))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/02/23 16:05
S22	0	S20 and (signal with (detect\$6 or monitor\$3 or sens\$3 or determ\$6))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/02/23 16:05
S23	1	S20 and (current or voltage or speed or torque)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/13 18:54

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S24	1	"4275618".pn. and ((current or voltage or speed or torque) with (detect\$6 or sens\$3 or monitor\$3))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/02/23 16:19
S25	12743	(motor with (start\$5 or stationary or deenergiz\$3)) and (gear or transmission) and ((rotat\$8 or polarity or direction) with current)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/13 19:00
S26	16	S25 and (transmission with (motor or actuator)) and (actuator with (shift\$3 or select\$6)) and ((polarity or direction) with (sens\$3 or determ\$6)) and ((current near3 (flow or direction)) with (rotat\$6 near7 direction))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/13 19:04
S27	3	S26 and hall	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/13 19:04
S28	2	"5313218".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/16 14:36
S29	2	"5315218".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/16 18:43
S30	0	S29 and (sens\$3 or detect\$6 or hall or monitor\$3)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/16 14:43
S31	0	S29 and (compar\$6 with current)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/16 14:44
S32	0	S29 and (compar\$6 with direct\$6)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/16 14:44
S33	27	(motor with (current near3 (sens\$3 or detect\$6 or monitor\$3 or hall))) and ((gear or transmission) near3 (shift\$5 or direction)) and (current with compar\$6 with (polarity or direct\$6))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/16 14:48
S34	22	S33 and ((motor or rotat\$6) with (\$5energiz\$3 or start\$6))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/16 14:49

## EAST Search History

S35	6	S34 and inverter	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/16 14:49
S36	0	(S29 or S35) and (fault near3 detect\$6)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/16 16:19
S37	1	(S29 or S35) and hall	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/16 16:19
S38	0	"5315218".pn. and ((shift or (rail adj2 select\$6)) with ((turn adj2 off) or (switch\$3 adj2 off)))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/16 18:45
S40	0	"5315218".pn. and (shift\$3 or (rail adj2 select\$6)) same ((turn adj2 off) or (switch\$3 adj2 off))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/16 19:15
S41	2	"4965847".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/18 15:59
S42	1	S41 and (direction with frequency)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/16 19:16
S43	0	"5315218".pn. and fault	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/16 19:28
S44	0	"5315218".pn. and ((sens\$3 or detect\$6 or monitor\$3 or resistance) with (signal or current or output or voltage or speed or direction or velocity))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/18 15:59
S45	1	"4965847".pn. and (current with (direction or polarity))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/18 16:24
S46	1	"4965847".pn. and (start\$6 or stationary)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/18 16:30
S47	121	(motor with ((revers\$3 or up or down) near3 direct\$6)) and (current with direct\$6 with Hall)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/18 16:31

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S48	102	S47 and (current with (sens\$3 or detect\$6 or monitor\$3))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/18 16:32
S49	0	S48 and ((inverter or (output adj2 stage)) with fault)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/18 16:33
S50	14	S48 and (edge with direction)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/18 16:34
S51	5	S50 and ((start\$6 or stationary) with motor)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/18 16:35
S52	5	S51 and ((brushless or synchronous) near3 motor)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/18 16:44
S53	54	S48 and ((brushless or synchronous) near3 motor)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/18 16:44
S54	3	S53 and (motor with (stop or start\$6 or stationary)) and (current with compar\$6 with direct\$6)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/18 16:57
S55	755	((brushless or synchronous) adj2 motor) and ((current near3 (sens\$3 or detect\$6 or monitor\$3)) with (signal or output)) and (hall with (direct\$6 or position))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/18 17:00
S56	155	S55 and (motor with (shift\$4 or revers\$3) with direction)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/18 17:00
S57	15	S56 and (motor with (start\$6 or stationary or \$3energiz\$3)) and (direct\$6 with compar\$6 with current)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/18 17:03
S58	3	"11239281"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/19 12:11
S59	17	"5514311"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/19 13:35

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S60	17	"5514311"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/19 13:38
S61	9	S60 and ((efficien\$5 or reduct\$6 or minimiz\$3))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/19 14:20
S62	5	S61 and (pressure with (reduc\$6 or minimiz\$3)) and (time or period)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/19 14:21
S63	1	S62 and ((current or power or torque) with (\$5process\$3 or \$5control\$3))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/19 14:22
S64	17	"5514311"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/19 15:50
S65	9	S64 and ((efficien\$5 or reduct\$6 or minimiz\$3))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/19 15:50
S66	1	S64 and ((efficien\$5 or (enegy near3 consumpt\$6)) with (reduct\$6 or minimiz\$3))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/19 16:37
S67	38	(injection adj molding) and (((pressure or compression) with (set or predeterm\$3 or command\$3 or target\$4)) with (time or period)) and (((pressure or compression) near6 (reduc\$6 or minimiz\$3)) with (period or time)) and ((efficien\$5 near3 (increas\$3 or maximiz\$3)) or ((enegy near3 consumpt\$6) near5 (reduct\$6 or minimiz\$3 or decreas\$3)))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/19 18:27
S68	11	S67 and (ratio with (pressure or compression))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/19 17:58
S69	857	molding and injection and stage and ((pressure or compression) with (time or period or stage) with chang\$6)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/19 17:41
S70	559	S69 and ((pressure or compression) with (set\$6 or predeterm\$6 or threshold or command\$3))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/19 17:42

## EAST Search History

S71	2	S70 and ((generat\$3 or determ\$6) with (pressure or compression) with (reduc\$6 or minimiz\$3) with ratio)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/19 17:46
S72	1	S70 and ((pressure or compression) with ((reduc\$6 or minimiz\$3) adj ratio))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/19 17:47
S73	547	((predeterm\$3 or set\$6 or command\$3) with (pressure or compress\$5)) and ((pressure or compression) with ((reduc\$6 or minimiz\$3) adj ratio))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/19 17:49
S74	823	((predeterm\$3 or set\$6 or command\$3) with (pressure or compress\$5)) and ((pressure or compression or set\$6) with ((reduc\$6 or minimiz\$3) adj ratio))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/19 17:50
S75	4	S74 and ((injection adj molding) adj (device or machine or apparatus))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/19 17:57
S76	51463	((injection adj molding) adj (device or machine or apparatus))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/19 18:26
S77	4207	((reduc\$5 or minimiz\$6) adj4 ratio) near6 (pressure or compression))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/19 18:00
S78	160	((predeterm\$3 or set\$3 or design\$3 or command\$3) near3 ((reduc\$5 or minimiz\$6) adj6 ratio) near6 (pressure or compression))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/19 18:05
S79	2	S76 and S78	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/19 18:02
S80	398	((predeterm\$3 or set\$3 or design\$3 or command\$3) near6 ((reduc\$5 or minimiz\$6) near6 ratio) near6 (pressure or compression))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/19 18:17
S81	3	((S76 and S80) not S79)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/19 18:11



## EAST Search History

S82	323	S76 and ((pressure adj2 hold\$3) with (end or over or period or time))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/19 18:14
S83	3	S82 and (((reduc\$5 or minimiz\$6) near6 ratio) with (time or period))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/19 18:18
S84	2	S83 not S79	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/19 18:18
S85	39	S76 and (current near3 (reduct\$6 or minimiz\$3))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/19 18:31
S86	0	S85 and (((pressure or compression) with (set or predeterm\$3 or command\$3 or target\$4)) with (time or period)) and (((pressure or compression) near6 (reduc\$6 or minimiz\$3)) with (period or time)) and ((efficien\$5 near3 (increas\$3 or maximiz\$3)) or ((enegy near3 consumpt\$6) near5 (reduc\$6 or minimiz\$3 or decreas\$3)))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/19 18:28
S87	17	S85 and efficiency	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/07/19 18:32
S88	2	"5315218".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/01 22:46
S89	4	(motor with transmission with direction) and (direction with transmission with validat\$6)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/09/25 19:52
S90	4	(motor with transmission with direction) and (direction with transmission with validat\$6)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/09/25 22:33
S91	2	S90 and (current near6 (polarity or direction))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/09/25 22:33
S92	33	(direction with transmission with validat\$6)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/09/25 22:33

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S93	3	S92 and (current near6 (polarity or direction))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/09/25 22:33
S94	1	S93 not S91	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/09/25 22:35
S95	18651	hall and (current near3 (flow or direction or polarity))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/09/25 22:39
S96	772	S95 and motor and ((gear or transmission) with direction)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/09/25 22:38
S97	57	S96 and (shift\$4 near3 motor)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/09/25 22:39
S98	0	"5315218".pn. and ((direction with Hall) or (current near3 polarity))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/01 22:51
S99	0	"5315218".pn. and ((direction with (sens\$3 or detect\$6 or monitor\$3)) or (current near3 polarity))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/01 22:47
S10 0	1	"5315218".pn. and (direction with revers\$6)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/01 22:48
S10 1	1	"5315218".pn. and (direction with determ\$6)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/01 22:49
S10 2	0	"6307337".pn. and (direction with determ\$6)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/01 22:49
S10 3	2	"6307337".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/01 22:49
S10 4	1	S103 and ((direction with Hall) or (current near3 polarity))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/01 22:50

## EAST Search History

S10 5	25413	((rotat\$6 or motor) with direction with Hall) or ((motor near3 current) near3 (direct\$6 or polarity)))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/01 22:54
S10 6	8084	S105 and ((transmission or gear or shift) with motor)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/01 22:55
S10 7	25	S106 and ((start\$6 near3 current) with compar\$6)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/01 22:56
S10 8	13	S107 and (direct\$6 near3 (sens\$3 or monitor\$3 or detect\$6 or determ\$6))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/01 23:12
S10 9	22	((transmission or shift) with (actuat\$6 or motor or mechanism)) and rever\$6 and ((rotat\$6 near3 direct\$6) with (detect\$6 or determ\$6 or monitor\$3) with start\$5) and ((current near3 (flow or polarity)) with start\$5)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/02 13:16
S11 0	12	S109 and hall	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/02 08:22
S11 1	4	(transmission with (shift near3 (actuat\$6 or motor or mechanism))) and revers\$6 and hall and ((current near3 (flow or polarity)) with start\$5)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/05 17:39
S11 2	0	(transmission with (shift near3 (actuat\$6 or motor or mechanism))) and revers\$6 and hall and ((current near3 (flow or polarity)) with start\$5) and ((validat\$6 near3 (mov\$6 or direction)) with motor)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/05 17:40
S11 3	0	(transmission with (shift near3 (actuat\$6 or motor or mechanism))) and revers\$6 and hall and ((current near3 (flow or polarity)) with start\$5) and validat\$6	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/05 17:40
S11 4	140	(validat\$6 with (direct\$6 or mov\$6) with motor)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/05 22:52
S11 5	18	S114 and (current near3 flow\$3) and Hall	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/05 17:48

## EAST Search History

S11 6	89	(shift with transmission with motor) and ((current near3 flow\$3) with (detect\$6 or sens\$3 or monitor\$3 or determin\$6))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/05 22:53
S11 7	11	S116 and hall	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/05 17:50
S11 8	647	((validat\$6 or choos\$3) with (direct\$6 or mov\$6 or rotat\$6) with motor)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/05 22:53
S11 9	1	S118 and (shift with transmission with motor) and (current near3 flow\$3)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/05 22:55
S12 0	65	S118 and transmission and shift	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/05 22:55
S12 1	21	S120 and (current near3 flow\$3)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/05 22:56
S12 2	1	S121 and (hall near4 current)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/05 22:57
S12 3	1	S121 and (hall with current)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/05 23:03
S12 4	9	S118 and (hall with current)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/05 22:58
S12 5	1	S120 and S124	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/05 22:58
S12 6	17	S121 and hall	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/05 22:59
S12 7	16	S126 not S125	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/05 22:59

## EAST Search History

S12 8	2	S127 and vehicle	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/05 23:02
S12 9	80	vehicle and (transmission with shift) and fault and validat\$6	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/05 23:31
S13 0	0	S129 and (hall with current)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/05 23:03
S13 1	74	S129 and current	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/05 23:04
S13 2	27	S131 and hall	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/05 23:04
S13 3	0	S132 and ((current near3 flow) with (detect\$6 or determ\$6 or measur\$6))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/05 23:05
S13 4	14	S132 and (current with measur\$6)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/05 23:13
S13 5	0	(hall with (rotata\$6 near3 direction) with discriminat\$6)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/05 23:14
S13 6	12	(hall with (rotat\$6 near3 direction) with discriminat\$6)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/05 23:14
S13 7	2	S136 and ((rotat\$6 with validat\$6) or (direct\$6 near3 indicat\$6))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/05 23:21
S13 8	0	S136 and (rotat\$6 with validat\$6)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/05 23:21
S13 9	10	S136 not S137	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/05 23:22

## EAST Search History

S14 0	0	vehicle and (transmission with shift) and fault and ((validat\$6 or discriminat\$6) with direction)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/05 23:31
S14 1	59	vehicle and (transmission with shift) and ((validat\$6 or discriminat\$6) with direction)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/05 23:32
S14 2	0	S141 and (current near3 flow) and hall	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/05 23:32
S14 3	7	S141 and (current near3 flow)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/05 23:32
S14 4	1	(rotat\$6 with direction with discrimiat\$6)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/06 10:31
S14 5	194	((gear or transmission) with (direction near5 discriminat\$6))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/06 10:32
S14 6	7862	((gear or transmission) with (direction near5 (allow\$5 or validat\$6 or permit\$6)))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/06 11:13
S14 7	4	S145 and S146	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/06 10:34
S14 8	59	vehicle and ((shift near3 motor) same (actuator near3 transmission))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/06 10:36
S14 9	4560	S146 and (direction with mov\$6)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/06 10:37
S15 0	41	S148 and (direction with mov\$6)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/06 10:37
S15 1	10	S150 and (direct\$6 with (validat\$6 or allow\$5 or approv\$6 or confirmat\$6))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/06 11:00

## EAST Search History

S15 2	19	S145 and (direct\$6 with (validat\$6 or allow\$5 or approv\$6 or confirmat\$6))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/06 11:06
S15 3	0	S152 and (current with hall)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/06 11:00
S15 4	32	S145 and vehicle	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/06 11:03
S15 5	2	S154 and (direct\$6 with (validat\$6 or allow\$5 or approv\$6 or confirmat\$6))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/06 11:04
S15 6	337	vehicle and ((shift near3 motor) with control\$6) and (direct\$6 with (motor near3 rotat\$6))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/06 11:05
S15 7	101	S156 and (direct\$6 with (validat\$6 or allow\$5 or approv\$6 or confirmat\$6))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/06 11:06
S15 8	11	S157 and (current near3 flow)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/06 11:07
S15 9	1	S158 and hall	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/06 11:07
S16 0	3	vehicle and (control\$4 with (shift near3 motor)) and ((gear or transmission) with (direction near5 rotat\$6) with signal) and ((allow\$5 or validat\$6 or permit\$6) with direction)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/06 11:17
S16 1	67	vehicle and ((control\$4 near3 direction) with (shift near3 motor)) and (gear or transmission)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/06 11:19
S16 2	2	S161 and ((current near3 flow) with signal)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/06 11:25
S16 3	172	((current near3 flow) with signal) and ((motor near3 direction) with (validat\$6 or permit\$6 or allow\$6))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/06 11:27

## EAST Search History

S16 4	7	S163 and vehicle and ((shift near3 motor) with direction)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/06 11:32
S16 5	3157	((current near3 flow) with (predeterm\$6 or command\$5) with detect\$6)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/06 11:33
S16 6	119	S165 and (((current near3 flow) near3 direction) with (predeterm\$6 or command\$5)) same (measur\$6 or detect\$6))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/06 11:35
S16 7	0	S166 and vehicle and ((shift near3 motor) with transmission)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/06 11:36
S16 8	16	S166 and vehicle	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/06 11:36
S16 9	0	S168 and (shift near3 motor)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/06 11:36
S17 0	16	S168	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/06 11:42
S17 1	2491	vehicle and ((transmission near3 actuat\$6) with (motor or mechanism))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/06 11:43
S17 2	1089	S171 and ((transmission near3 actuat\$6) with (select\$6 or shift\$4))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/06 11:51
S17 3	0	S172 and (frequency near3 signal) and (((current or flow) near3 direction) near6 signal)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/06 11:48
S17 4	1	S172 and (((current or flow) near3 direction) near6 signal)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/06 11:49
S17 5	61	S172 and current and hall	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/06 11:51



## EAST Search History

S17 6	53	S175 and direction	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/06 11:54
S17 7	21	S176 and ((validat\$6 or permit\$6 or allow\$3) with (motor or direct\$6))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/06 15:37
S17 8	14	S177 and (current near6 direction)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/06 16:38
S17 9	7	S178 and (position with (current near3 (increas\$3 or decreas\$3 or chang\$3)))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/06 16:45
S18 0	3	S179 and ((motor near3 movement) with direction)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/06 16:56
S18 1	0	S180 and ((direction or movement or motor) with validat\$6)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/06 16:57
S18 2	3	S180 and (current with (measur\$6 or compar\$6 or difference))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/06 16:58
S18 3	3	S180 and (current with measur\$6)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/06 17:05
S18 4	3	S180 and (current with compar\$6)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/06 16:59
S18 5	0	S180 and (current with difference)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/06 16:59
S18 6	0	S180 and (direction near6 instruction)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/11/06 17:05